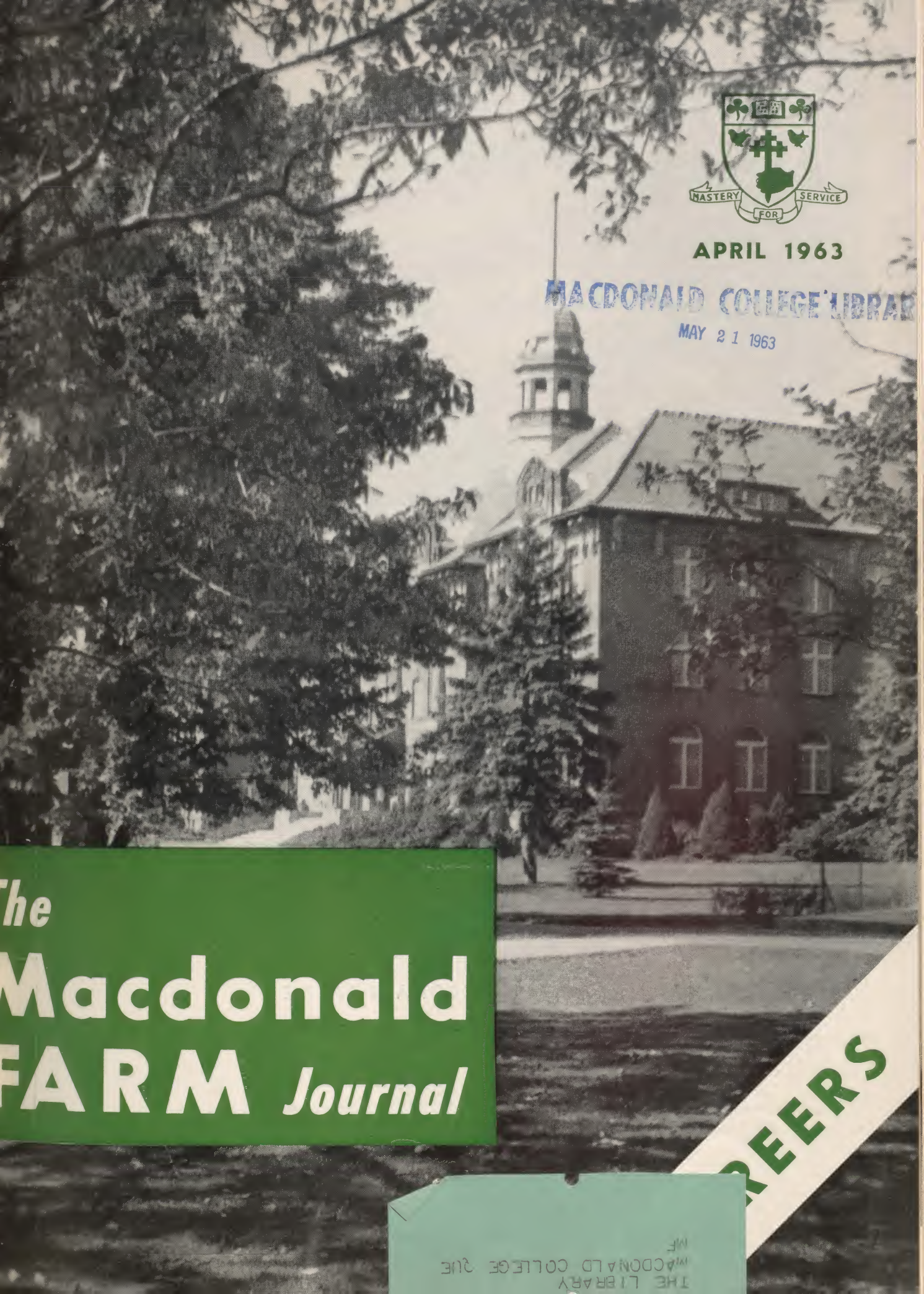

MASTERY FOR SERVICE

APRIL 1963

The Macdonald FARM Journal

CAREERS

THE MACDONALD LASSIE

MARKET OUTLOOK ECONOMIC INDICATORS

Indicator	1949	1961-62	1962-63
Index of Industrial Production, Canada, December	100	173	189
Labour Income, Canada, December	100	203	216
Consumer Price Index Food, Montreal, February	100	132	135
Cash Farm Income, Quebec, January-December, Millions	321	437	442
Net Farm Income, Quebec, Annual, Millions	204	195	195 (est.)
Farm Prices, Quebec, February	100	105	106
Cost of Goods and Services Used by Farmers, E. Canada, August	100	141	145
Farm Price of Milk for Ice Cream and Concentration, Quebec, Dollars per Cwt., December	$ 2.67	$ 2.80	$ 2.81
Price Canada A. Hogs, Montreal, March 21	$28.68	$26.25	$26.50
Price Good Steers, Montreal, March 21	$30.10	$24.40	$22.80

ON CAREERS FOR YOUNG FARM PEOPLE

The need for more qualified guidances teachers in rural high schools in Quebec was stressed at a recent Farm Forum discussion. At present most young people receive career information from school counsellors, agricultural extension workers and church workers. This is all very well, the forums thought, but there should be more guidance than at present. If full time guidance counsellors were located in each district or county then they would have more tim to spent with individual student and would be able to organize career nights, field trips, and visits to colleges and universities.

It was also felt that there should be more information available to help a young person decide what type of career he inteds to follow. Sutton Forum in Brome County disagreed saying, "There is plenty of information available, students should study and make use of what they have."

The problem of financing a college education was reported as one problem of young people in choosing a career. Most did not know where they could obtain financial assistance. Some forums reported that this was not a problem. They felt that if there was a trained guidance counsellor in their area, then this individual would be able to inform students of sources of assistance.

College News

On April 9 and 10th, several members of the Eastern Canada Farm Writers visited Macdonald College for a special tour of current research projects. One evening was set aside to discuss the marketing of farm products in Quebec and Ontario. Mr. Jean Marie Bonin of the Quebec Dept. of Agriculture and Mr. Everett Biggs of the Ontario Dept. of Agriculture, Toronto were on hand to answer questions from these members of the farm press. The group toured the new animal products laboratory, the research building for swine, the Quebec Seed Farm and the Morgan Arboretum.

Dr. M.A. Macdonald of the Dept. of Animal Science has been in Bermuda where he judged at the 28th Bermuda Exhibition on April 17, 18 and 19.

A new variety of birdsfoot trefoil has been licensed by Macdonald College. Originating from selections of Russian plants, it has shown considerable winter hardiness and superior production to the standard varieties. Named "Leo", seed will not be available for Quebec farmers until 1967.

April at Macdonald College has been examination month. Students will be receiving their degrees on May 29th.

Professor John G. Coulson will become Professor Emeritus of the University at the May Convocation. Professor Coulson has been associated with Macdonald College for many years and is well known by many graduates.

Four students from the Institute of Education were selected in March to take part in a student exchange scheme with the State University College of Education, Plattsburgh, New York. They spent two weeks observing and teaching in schools in the Plattsburgh area as well as sitting in on lectures offered to student teachers at Plattsburgh. This month four American students from Plattsburgh will travel to Macdonald College for a similar experience in Canadian schools.

INSIDE . . .

TOM PATTERSON was a man with a dream . . . a dream that resulted in one of the most authentic festivals that Canadians know. The Stratford Shakespearean Festival's first performance was held in a test on the village green. The residents of Stratford scoffed at the idea of having "this Shakespeare stuff" littering their quiet town.

Today the people of Stratford are thanking the founders of the Festival. The town has become world famous. New business has attracted new residents to the culture capital. During the summer months the town is a hive of activity. The merchants are smiling, the innkeepers are smiling, the young people are smiling because they can get a job close to their homes. Farmers are smiling too. They realize that when the economy of a region improves, their standard of living also improves.

It does no good though to sit back and watch with envy what is going on in other areas of Canada Farmers in Quebec have one of the greatest heritages of any in North America, a heritage that dates back to the early days of French Canada. Tourists are becoming aware of this. In future, they will become even more aware. Unless farmers are prepared to accept tourists as a type of "cash crop", then we might as well forget about colourful travel literature, advertisements in New York magazines and the 1967 World's Fair in Montreal. The tourist business is big business in Quebec — it's going to be bigger, farmers should be ready to greet the thousands of summer visitors who are now making their plans.

How? What about a maple sugar festival in the Eastern Townships? The ski resorts would love to have more business for spring skiing, the hotels and restaurants would like to hear their cash registers ringing in this normally quiet time of the year and farmers would be able to host special sugaring-off parties. They'd be able to sell their maple products at a higher price. They'd be able to welcome paying visitors to their homes for a farm vacation in spring. What coul dbe better?

In the summer months there are the many county museums, the displays of early Quebec furniture and the agricultural fairs. In the fall there is the "Festival of Foliage", so typical of Quebec. In the winter, skiing, sleigh rides and all the other winter sports. All this in addition to the hunting, fishing, the lakes, the mountains, summer theatres and scores of other attractions.

With summer only a few months away, with preparations for the World's Fair the construction of new highways, the tourist industry is going to become bigger business than it is now. Let us each do our part in inviting our neighbours to Qubeec and making them feel welcome when they arrive. We can all benefit as a result.

TEN MILES from Macdonald College, in a sound-proofed room at the Canadian Meteorological Service, sits an electronic computer ready to provide more accurate, more detailed and more up-to-the-minute forecasts.

The G-20 is now undergoing tests before it comes into use this summer.

At the present time, data is collected from hundreds of points throughout the Northern Hemisphere, fed into the office in Montreal where it later forms the basis of our weather forecasts. This requires many man-hours and experience.

Once the computer starts operations this summer, the data will be fed into the machine. The machine will then analyse the world weather picture and issue a printed forecast for the various regions in less than an hour. This new weather computer is the first in Canada. It can do 100,000 additions in one second.

As a result of the use of this machine, we should expect more detailed forecasts in less time. In addition, we hope that its use will free meteorologists so that they can spend more time on farm weather forecasting. There isn't much that farmers can do about the weather, but, if presented accurate short range forecasts and long range forecasts, they can change their plans to make best use of their time. We hope that the new computer and the meteorologists who operate it won't forget Quebec farmers when they make changes in their system of forecasting.

Next month . . .

We visit Jacques de Chambly Historical village as we step into history to a time some thirty years before the period of Loyalist Upper Canada. The village, situated 20 miles south of Montreal near the town of Chambly, is still incomplete. Only three buildings are on the site, but when, completed it will be a living museum of Early French Canada.

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The Macdonald FARM Journal

VOLUME 24 NUMBER 4

APRIL 1963

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ADVERTISERS INDEX

Have you taken a close look AT THE FUTURE?

THIS MONTH OF APRIL is the time when many young people across Canada are making up their minds about their future careers. It's a time when parents, teachers and councellors are being asked about the cost of a college education, financial assistance available and entrance requirements. To assist you in answering these questions and to help high school graduates in making their decisions, we provide this special issue of the Macdonald Farm Journal.

Will agriculture, home economics and education provide good careers in the future?

Most graduates from Macdonald College this year can expect to be still active in the year 2000. The demand for graduates is increasing each year. As population increases, the demand for Macdonald graduates will also increase. For those who want to work there are many jobs.

What preparation is needed for entrance to Macdonald College?

A McGill School Certificate or the Quebec High School Leaving Certificate with a minimum of 65% in ten subjects is required for entrance to Macdonald College. The required subjects are listed in the Calendar available from the Registrar, Macdonald College.

What does it cost for a college education?

At Macdonald College the approximate cost for students in Agriculture and Home Economics is $840 per year. This includes board and residence and textbooks. For students in education the cost is approximately $860.

How do salaries compare with those offered for other careers?

The demand for Macdonald graduates usually exceeded the supply. Teachers salaries depend on the area of the province. Agricultural scientists receive the same salary as that of other scientists, agricultural business and industry offer monetary rewards on the level of other business and industry. Several students will receive $4800.00 during their first year. The agricultural profession compares favourably with other professions. Employers look for good students who have pleasant personalities, initiative and are able to accept responsibility.

Is a farm background necessary for a career in agriculture?

For some careers such as farming and teaching high school agriculture, farm experience is valuable. For others it is helpful but not necessary. In many cases there are more urban students taking agriculture than there are rural students.

Is it necessary to have a degree to succeed?

A college degree is necessary for success in many areas of agriculture and is becoming increasingly important. For those unable to spend four years in getting a degree, there is a two year diploma course in Agriculture.

What does one study at Macdonald College?

The first two years of Agriculture and Home Economics are basically the same with emphasis on chemistry, physics, mathematics, and biology. The third and fourth years offer an opportunity for those wishing to specialize in a specific field. In agriculture a student can specialize in one of the following options:

Agricultural Bacteriology
" Chemistry
" Commerce
" Economics
" Engineering
" Agronomy
" Animal Science
" Entomology
" Food Management
" General Agriculture
" General Biology
" Horticulture
" Plant Pathology

Students in Home Economics can specialize in Dietetics, Food Management or General Home Economics.

Is there financial assistance available?

Considerable assistance is available. Governments provide bursaries and loans. In addition there are several bursaries, scholarships, and loans available from interested parties and organizations. High school principals are familiar with the financial assistance available.

Where can one obtain further information?

For agriculture and home economics, write to the Registrar, Macdonald College, Quebec. For students interested in education, write the Director, Institute of Education, Macdonald College, Quebec.

THESE ARE REPRESENTATIVE CANADIANS IN AGRICULTURAL SCIENCE, BUSINESS AND PRODUCTION

Agricultural Attaché
Agricultural Chemical Salesman
Agricultural Consultant
Agricultural Commodiies Broker
Agricultural Economist
Agricultural Engineer
Agricultural Instructor
Agricultural Missionary
Agricultural Publications Editor
Agricultural Statistician
Aerial Applicator
Agronomist
Animal Husbandman
Bacteriologist
Banking Official
Beekeeper
Biochemist
Biologist
Biophysicist
Botanist
Breeding Technician
College Faculty Member
Commodity Grader
Commodity Fieldman
Conservationist
Cooperative Manager
County Extension Agent
Dairyman
Dairy Plant Manager
Dairy Technologist
Director of Research
Elevator Manager
Entomologist
Extension Specialist
Farm Appraiser
Farm Credit Manager
Farmer
Farm Equipment Specialist
Farm Machinery Dealer
Farm Manager
Farm Operator
Farm Planner
Farm Realtor
Farm Store Manager
Feed Dealer
Feed Salesman
Fertilizer Salesman
Field Crop Grower
Florist
Food Processor
Food Retailer
Food Technologist
Foreign Agriculturist
Forester
Fruit Grower
Geneticist
Golf Course Superintendent
Grain Buyer
Greenhouse Grower
Herdsman
Horticulturist
Inspector-Food or Feed
Insurance Agent
Laboratory Technician
Land Appraiser
Landscape Architect
Livestock Breeder
Livestock Buyer
Livestock Feeder
Machinery Salesman
Market Analyst
Market Reporter
Meat Department Manager
Nurseryman
Nutriionist — Plant or Animal
Organization Fieldman
Park Manager
Park Ranger
Pathologist—Plant or Animal
Physiologist—Plant or Animal
Poultryman
Produce Department Manager
Public Relations Director
Purchasing Agent
Radio Farm Director
Rancher
Rural Sociologist
School Administrator
Seed Grower
Seed Merchandiser
Soil Scientist
Turf Specialist
TV Farm Director
Vegetable Grower
Veterinarian
Wildlife Manager
Zoologist

V.I.F. for V.I.P.

IN THE NOVEMBER 1962 number of the Journal appeared the announcement of a "new" method of introducing adult students to Conversational French — the Saint-Cloud course known as "Voix et Images de France". At that time it was indicated that a progress report might be made in a later issue. Here is an attempt to assess the accomplishment of the group and to estimate the value of the method for Extension Courses elsewhere in the Province.

Briefly, the technique consists of presenting material by film strip and tape recorder. The teacher tries to ensure broad understanding at first. Then he requires each student to repeat the phrases spoken on the tape in direct association with the picture; much time is used to secure accurate imitation of the tape. Thirdly the teacher shows the film without the tape and requires each student to speak the phrases associated with each picture. Fourthly the teacher guides question and answer sessions concerning each picture, encouraging comment in French by the class. At length the teacher leads the students to use the phrases thus acquired in conversation about the circumstances of their own life.

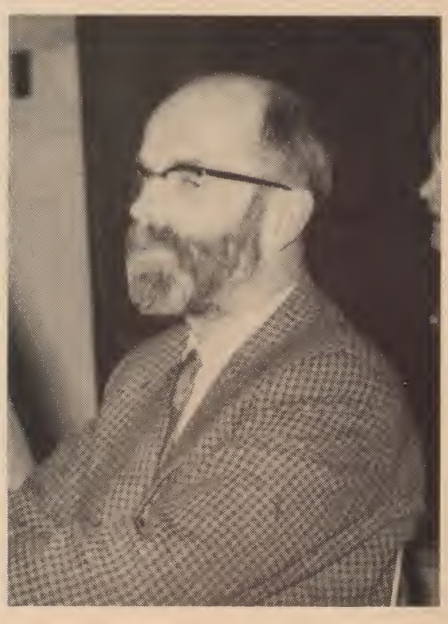
Student desks are arranged in V-formation. The teacher operates the machines and teaches from a position at the point of the V. The screen and loud-speaker are placed at the open end of the V. Thus students can without difficulty turn their attention from screen to teacher as occasion demands. The room remains undarkened: we want to create as natural a situation as possible.

On January 15, 23 members of Macdonald College staff and associates began the course. The class meets twice a week, 6.30 to 8.30 p.m. on Tuesdays and Thursdays. Interest has been keen and attention has maintained; in spite of inevitable conflicts of interest, attendance stands at over 90% and there has been only one drop-out.

When asked to help us evaluate our work, students have been frank in expressing their reaction to the course. Enthusiasm marks the general opinion. Initial complaints concerning lack of clarity in the sound have diminished as we have tried to improve the quality of sound reproduction and as the students have become attuned to French intoned at a natural speed. The fact remains that we have not achieved perfect clarity in sound reproduction. Some students have found their previous limited knowledge of French an advantage; others have found it a handicap where the written word has blocked their mastery of the spoken language. Most students have purchased gramophone records which enable them to review lessons between classes.

In approximately 25 hours of class time we have "covered" five lessons; at this rate we should be able to do some 15 of the 32 lessons by the end of May. Already, students understand much French; they answer rapidly and readily questions based on the material studied; their pronunciation and intonation improve steadily. By the end of May it is expected that members of the class will be able to speak French with fair fluency in a wide range of situations and that they will have made a start at writing and reading French.

An observer has remarked quite rightly that an equivalent amount of time devoted to teaching French by any method would have good results. This particular method, however, seems to be well designed to achieve the aims which the planners have in view; ease in understanding and in speaking French at a normal rate of speed and with near-native pronunciation and intonation. The film strip creates a nearly-natural situation; the tape recorder furnishes an unvarying and correct pattern for imitation; the subsequent "exploitation" of the material furnishes the occasion to make this material a part of the student's linguistic experience. It has been noted that as the course progresses an initial impulse to "translate" everything into English disappears. Vanished too is the question: "How do you spell it?" At a much later stage, when oral patterns are well established, writing and reading will be introduced.



The teacher must be in sympathy with the objectives of the course and aware of the techniques required to attain the ends. He should therefore have made contact with CREDIF courses in France or with the Chilton Books courses in Philadelphia. The Chilton courses are generously subsidized by the publishers; information may be obtained by writing to Chilton Books, 525 Locust St., Philadelphia 6, Pa., U.S.A. Ask for information about the Center for Curriculum Development in Audio-Visual Language Teaching.

The 32 film strips and tapes cost about $177.00 U.S. A sturdy tape-recorder — and it must be sturdy because it takes hard treatment — costs, second hand, about $100.00. Similarly, a second-hand projector can be bought for about $40.00 and an adequate screen for about $20.00. The sum of $200.00 should thus be more than enough for the mechanical equipment involved.

The course is most valuable when the class sessions occur with a minimum of interval: in our case students deplore the lapse of time between Thursday and Tuesday. The five lessons which have taken us about six weeks are covered in five days when the course is offered intensively. If one can arrange two hours a night, three to five nights a week, one comes closer than we do to the ideal.

It is too early to say whether the course as we are running it can be called a complete success. If others wish to make the attempt they should be prepared to send the prospective teacher to Philadelphia for a period of training; to spend close to $400.00 on tapes, film and equipment; to pay the teacher well; to schedule long and frequent sessions and finally to restrict the number of students to about 20.

Observers will be most welcome at any of our sessions: Tuesdays and Thursdays, 6.30 to 8.30 p.m., Room M250, Main Building, Macdonald College.

THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE
BY THE
QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION

Compiled by T. Pickup of the Information and Research Service, Quebec Department of Agriculture and Colonization.

FOUR MILLION BUSHELS OF POTATOES NEEDED

This month in the

FAMILY FARM

Section

A large field of potatoes in the Province of Quebec.

WHY DO THE farmers of Quebec leave it to others to supply nearly half the potatoes required by their own markets? Mr. Omer Michaud believes that many of them would reply, "There's no money in potatoes"; but he also wonders what kind of a crop it is that they expect to find more profitable.

For one thing, the statement that potatoes no longer pay is open to question; and for another, there is even less certainty of better profits from other special crops. In other words, our potato growers seem to lack confidence, like a man who won't venture into the forest because he is afraid of falling into the lake. Thus, hesitating, they continue to grow potatoes, perhaps even on a larger scale, leaving it to chance to look after the improvement of conditions. This is the picture of many a farming enterprise: a small group of farmers are habituated to it, like fish to the water; a certain number make a living from it while a larger number don't.

Potatoes can be made to pay

Mr. Michaud says that, during his thirty years in the service of potato growers, he has often had to listen to the refrain "potatoes don't pay" but, having seen some growers succeed while others failed, he does not pay too much attention to such defeatist remarks. In fact, too many farmers have got out of the backwater, kept themselves afloat, made headway, and established their children with the help of this crop, to leave him much faith in the story "potatoes don't pay".

Causes of failure

It is true enough that, for a certain type of grower, potatoes do not pay, and causes are not hard to find: the four main ones are as follows:

1. Planting on too small a scale so that production costs are unduly high for the size of the crop;
2. Planting in land which may produce potatoes of good quality, but cannot be made to yield a large enough crop to make it worth growing them;

3. Planting in land that can be made to yield a big enough crop, but only of potatoes too poor in quality to compete on the market;
4. Complete lack of orderly marketing.

Remedies

The last of these failings (namely, the disorderly and inadequate marketing which never yet led to anything but disappointments) should be corrected before an attempt is made to find new markets. The frequently heard lament that "there's no market for our potatoes" usually turns out to be made by the same people who complain that potatoes don't pay. If, by "market", they mean a place where they can sell their crop at a price high enough to make up for deficiencies due to inefficient growing methods, they are right: there is not, and never will be, such a market for potatoes. There are growers, however, who know from experience that a market is something different; that there is an inescapable law of supply and demand; that the margin between cost of production and selling price is slight; and that there is still some ground to be covered in the direction of more efficient production and marketing in order to widen this vital margin. The grower who knows all this and is still ready to face the music, is ready to make overtures to the market for four million bushels of potatoes referred to in the title of this article.

Imports of potatoes received by rail at Montreal and Quebec during the period 1956-61 have averaged nearly three and a half million bushels a year. If deliveries by road and direct shipments by rail to small centres had been included, the figure would probably have been about four million. It should be added that these imports supply the cream of our market for table potatoes and get the best prices and the best publicity. This is the market that our growers should aim at.

Quebec's total consumption of potatoes amounts to nearly eight and a half million bushels a year. Thus, nearly half of our requirement is satisfied by imports. Quebec's own marketable crop comes to about six million bushels. In theory then, we should only have to import two and a half million bushels to meet our needs. By importing four million we bring in a surplus of one and a half million bushels which tends to crowd an equal volume of our own produce onto inferior markets or even back onto the farm.

If our production remains at the present level of six million bushels of marketable potatoes a year, the deficit, now amounting to two and a half million bushels, will become greater as our population increases.

Hélène Santerre helps to harvest potatoes on her father's farm at Saint-Alexandre, in the county of Iberville.

Volume of shipments

In view of the size of the potential market revealed by the foregoing figures, the excuse that there aren't any outlets for Quebec potatoes does not hold much water. As a matter of fact, it is not the market that is lacking: what is needed is a concerted effort by all those interested to capture for themselves the one that already exists. The present situation can only be put right by combined action. This has been amply proved by the limited headway achieved so far as a result of many efforts by individuals or small, isolated groups. A market as big as that of Montreal will never be captured without effective planning. The fact that 50% of this market is catered for by four or five large chain retailers, and another 35% of it by groups of associated grocers, explains why two thirds of the potatoes consumed in the metropolis come from outside the Province. While the housewife buys potatoes from the chain stores in bags of five or ten pounds, the chain-store companies buy five or ten carloads at a time. This means that their buyers have to buy in large quantities from supplies who can also deal in large quantities. There is where the first problem lies for our growers; and the first step towards its solution consists in the concentration of our production, or, in other words, the assembling of considerable quantities of our potatoes at a limited number of loading points. This is not all that is required to solve the problem but it is the first thing, in order of importance, that our growers need to attend to, especially because of the fact that such a concentration of our production would clear the way for the application of many other factors of success which are now neglected in many places.

Importance of storage

The concentration of our potato production will become possible through the construction of large cooperative storages. These will help to define more precisely our centres of production and, as a result of the standards which the members will impose on themselves in their own interests, they will lead, by a kind of natural selection, to the elimination of less serious growers. These tendencies have so far been shown in the case of the storage at Joliette. It is possible that other formulas than the one suggested above may be good, but, if they are to be successful, they will have to include the essential element — the concentration of supplies.

Conclusion

In conclusion, Mr. Michaud advises potato growers to put their faith in the possibility of a revival in their fortunes, and he hopes that each one of them will resolve to make his contribution to orderly marketing in 1963.

CLEANING UP THE RASPBERRY PLANTATION

As soon as the raspberry harvest is over, it is advisable to do the job of removing the canes which have borne fruit. If this task is put off for too long, there is a danger that the plantation may be stimulated into belated growth, so that the wood of the raspberry plants will not have time to mature, and serious damage may be caused by frost during the winter.

Mr. Paul Vanier, instructor in horticulture of the Quebec Department of Agriculture and Colonization makes the following recommendations:

Remove the canes which have borne fruit and burn them, away from the plantation.

In order to restrict the spread of diseases, do not allow the row of canes to grow wider than 24 to 30 inches.

Do not keep too many stems in the row. Thin them out, by removing the less vigorous, until they are not less than a hand's width apart.

Do not apply any fertilizer after picking. Wait until the following spring.

It is a good idea to sow fall rye or oats between the rows, and plough it under late in the fall.

This work if cleaning up and thinning out should be done as soon as the harvest is over, so that the vigour of the raspberry plants will be preserved and frost damage prevented.

ONE - OR MORE - CROPS OF STRAWBERRIES FROM YOUR PLANTATION ?

by C. E. STE-MARIE*

In spite of the efforts made during the last ten years by all those connected with the growing of strawberries in Quebec. results in this field have fallen short of expectations.

We believe that the main causes of these disappointments are:

a) the use of varieties extensively affected by virus diseases;

b) plantations kept too long in production;

c) misunderstood and poorly carried out growing practices;

d) unsuitable location and inadequate tillage;

e) lack of irrigation systems when necessary for protection against frost and drought.

Fortunately, since 1960, a new era has been glimpsed with the arrival of the varieties, Cavalier, Redcoat, Sparkle, and Guardsman, whose great vigour and productive capacity are now widely recognized. Many growers now use an irrigation system, both to protect their plantations against late spring frosts and to make up for insufficient rainfall during the season. The results are beginning to make themselves felt, since a number of growers have already obtained yields ranging from six to eight tons of strawberries to the acre. These results afford grounds for belief that Quebec growers who faithfully follow the directions given by specialists, will be able to cope favourably with competition. They will soon have a plentiful volume of strawberries of excellent quality to supply their own markets with, and they will also be in a position to realize good profits.

Proof having been given that strawberry growing can be profitable in Quebec, the growers, after obtaining plants from virus-free plantations, should hasten to improve their growing methods and follow to the letter the advice of specialists, as regards marketing as well as production.

Knowing the growers well enough to realize that many of them will be tempted to maintain their plantings for a second and even a third cropping season, we decided in 1955 to keep the new varieties for a second season in order to find out how they would perform.

Climatic conditions in the eight years, 1955-62, varied greatly, thus increasing the validity of the results which appear in table 1. In some years, the season was early, and late spring frosts caused damage; in others, the season was late and accompanied by dry periods; and sometimes we had a mixture of all these troublesome conditions. Incidentally, if the plantations had been irrigated in 1961 and 1962, yields would have been much higher.

Few people realize that about five thousand pounds of strawberries must be harvested from an acre merely to cover costs of production. If growers want to meet competition and make a decent profit, they must do everything possible to obtain at least eight to ten thousand pounds to the acre. Many growers have already exceeded this objective.

* *Translated from an article published in "Research for Farmers", Vol. 8, No. 1. Mr. Ste-Marie, of the Experimental Farm at L'Assomption, has specialized in research on fruit.*

Let us consider briefly what must be done by those growers who wish to harvest a second crop from a planting. First, as soon as the last picking of the first year is ended, there is the work of renovating the plantation. This operation is thus carried out at a time of year when rainfall is scanty, and the applications of fertilizer that are recommended are slow to produce their effects; the weeds which have grown up during the picking season will be difficult to check with pesticides; weeding will be expensive, not to mention the sprayings necessary to control insects and diseases. In most cases, the final result of all these operations is a yield smaller than those recorded in table 1.

With a view to providing further useful information for growers, we also kept records, during 1959-61, of the number and average weight of berries harvested in first crops and again in second crops from the same plantations. These results are shown in table 2.

It will be seen that, for all varieties listed in table 2, the barries of the first crop were larger and heavier (on the average) than those of the second crop, and could therefore be picked more easily and quickly and would have a better appearance and fetch a higher price.

Briefly, it may be said that:

1) the first crop greatly exceeds the second in yield;
2) profit per acre is higher from the first crop;
3) weeds, insects and diseases are easier and cheaper to control when plantings are kept only long enough for one crop;
4) the renovation of a strawberry plantation involves great risks which few growers are in a position to incur if they want to realize suitable profits;
5) except at the first picking, the berries of the second crop are smaller.

TABLE 1: Difference in yield between the first and second crops of strawberries from the same planting.

Varieties	Four first-year crops: 1955-57-59-61	Four second-year crops: 1956-58-60-62	Difference in pounds per acre
	Average yields in pounds per acre		
Cavalier	10,882	7,741	3,141
Redcoat	14,502	11,510	2,992
Sparkle	14,413	12,118	2,295
Guardsman	15,204	12,760	2,444

TABLE 2: Difference in size and average weight of strawberries of first and second crops from the same plantings; 1959-61.

Variety	First Crop		Second Crop	
	Number of berries per pint	Average weight of berries in grams	Number of berries per pint	Average weight of berries in grams
Guardsman	31	10.5	36	8.8
Redcoat	34	8.1	38	7.3
Sparkle	36	7.6	42	6.6
Cavalier	44	6.3	47	6.0

TREES TO AVOID PLANTING

Many people plant trees, in town or country, to provide a little shade or for protection from the wind or perhaps to adorn a corner of the garden with a mass of foliage. The question of what kind to plant is not always as easy to decide as might be supposed. One of the least regarded but most important factors is the possibility that the kind of tree chosen may be susceptible to the attacks of diseases or insects that may destroy it. It is important to take this into consideration because, as a matter of fact, a number of species of trees fall an easy prey to pests against which science has so far been able to do very little. In some cases, one can predict with reasonable certainty that sooner or later (but always too soon), somebody or other is going to have to resign himself to losing a tree while it is still young and having to replace it with a different kind.

Mr. Lionel Cinq-Mars of the Quebec Department of Agriculture and Colonization points out that three such trees, commonly planted but liable to premature death, are: the American elm, the mountain ash, and the Robinia (false acacia or locust).

Trees and a rockery enhance the grace of Mr. Wilfrid Serre's house at St-Edouard, Napierville.

The Elm

The American elm (*Ulmus americana*) is a very graceful and well-loved tree. How different the plain of Montreal would appear without those great solitary elms that have been left or planted mainly for the sake of the shade they provide for farm animals. Many are still being planted each year. Since 1944, however, elms in Quebec have been attacked by a serious malady known as Dutch elm disease, caused by a fungus called *Ceratocystis ulmi*. At present, it is very difficult to prevent this disease, and it is spreading. Every year, many elms die of it. Anyone who plants an American elm runs a risk of losing it before very long.

Mountain Ash

Two species of mountain ash are generally planted for decoration: one, *Pyrus americana*, the American mountain ash, is one of our native trees; the other is *Pyrus Aucuparia*, the European mountain ash or rowan. These trees, sometimes known as service-trees, are very closely related to our apples and pears, which also bear the name of Pyrus. Trees of this genus are liable to be attacked by a bacterium, *Erwinia amylovora*, that causes the disease known as fire-blight. Mountain ash trees are particularly susceptible and many have died of this disease in the Montreal region during the past ten years. No effective treatment is known once the disease has established itself. Preventive measures are difficult to carry out and do not provide sure protection. It is therefore better to plant other kinds of trees instead, especially in areas where fire-blight is already prevalent.

Robinia

Robinias or common locusts are very beautiful trees, belonging to the legume family. They bear clusters of flowers resembling, in shape, those of clover and peas. Two species of Robinia are grown in Quebec: the black locust (*Robinia pseudo-acacia*); and the clammy locust (*Robinia viscosa*): both kinds are frequently, and incorrectly, called Acacias.

Robinias periodically suffer massive attacks by an insect known as the locust borer (*Cyllene robiniae*) whose larvae make tunnels in the trunk and branches which eventually lead to the death of the tree. The most recent outbreak of this insect was very serious and caused the loss of many trees. Measures suggested for the control of this insect are difficult to apply and give mediocre results. It is therefore preferable not to plant Robinias.

It is a pity that the planting of such beautiful trees cannot be recommended. Nevertheless, there are a number of other kinds which can be planted with more confidence instead of them, for instance: basswood or American linden, maples, ash, butternut, black walnut, hickory, oaks, horse chestnut, honey locust (Gleditsia triacanthos), certain kinds of apple, hawthorns, ornamental plums and cherries, and even the tulip tree, the catalpa, and the white mulberry in the warmest parts of Quebec.

A fine tree dying of Dutch elm disease on the farm of Roland Demers, at Brébeuf in the county of Terrebonne.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

THE FERTILIZATION OF ORGANIC SOILS

Organic soils are potentially more productive than mineral soils because of their great capacity for holding water and nutrient elements. It therefore pays to fertilize them generously, especially when they have been recently brought under cultivation. However, in view of the high nitrogen content of well-decomposed organic soils, applications of this element should be limited to 20 or 30 pounds to the acre. On the other hand, the less decomposed mucks and the peat soils are not so rich in nitrogen and are given applications of 60 to 150 pounds per acre, depending on the crop that is to be grown. Nitrogen is especially helpful to leafy vegetables such as lettuce and celery.

Organic soils are usually poor in phosphorus during their early years under cultivation. This element should therefore be added to the soil. It will promote the development of good roots and help to ensure vigorous plants.

The role of potassium in the plant is to take part in the formation and transport of carbohydrates. Potassium also increases the resistance of plants to diseases. In view of the prolific growth of vegetables on organic soils, plenty of potassium should be applied.

Mr. H. Robert of the Quebec Department of Agriculture and Colonization reminds growers that minor elements should be included, at least every two or three years, in the commercial fertilizers spread on organic soils, because land of this type contains very little of them and may be so deficient that it is sometimes impossible to get a crop without first applying copper and boron. It is therefore advisable, when starting to use organic land, to apply 20 pounds of borax and 50 pounds of copper sulphate per acre, and also a magnesium compound.

So-called "indicator plants" are grown in order to reveal shortages of minor elements; for example: turnips for boron, corn for zinc, and onions for copper. In case of deficiency, these vegetables show very distinct signs. Thus turnips lacking boron suffer from "brown heart"; corn deprived of zinc has pale yellow or whitish stripes or spots on the leaves; and the outer scales of onions grown in copper-deficiency soil are pale in colour. This method of detecting deficiencies is simple and effective.

Although one can raise crops in organic soil without using farm manure, its application (with suitable caution and in moderation) is recommended on muck land which has been cropped for a number of years, because it has the effect of improving soil structure.

There are different methods of applying fertilizers. In the case of most crops grown on organic soils, the drill is used to apply fertilizer in rows from 4 to 7 inches apart: for onions, an application is sometimes made broadcast, in the preceding autumn.

To encourage growth, some growers apply "side-dressing" of simple fertilizers or, in other cases, of complete ones, close to the rows of plants. Nitrogen and potassium are applied to celery in this way.

Some fertilizers can also be supplied to plants by foliar application. Thus, for the correction of manganese deficiency in celery, the leaves of the plants are sprayed with manganese sulphate, at the rate of 7 to 8 pounds in about 45 gallons of water per acre.

Many plants, enfeebled or damaged when planted out in the field, need envigorating. Certain very soluble, complete fertilizers known as transplanting fertilizers and containing a high proportion of phosphorus, are obtainable for this purpose. One or two applications help the newly moved plants to rebuild their root systems and resume normal growth.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

THE TREATMENT OF ORGANIC SOILS

During recent years, the growing of vegetables in organic soils has greatly increased. Twenty years ago, there were scarcely 500 acres of this kind of land being used for vegetable production in Quebec: today there are about 8,000. Mr. H. Robert of the Quebec Department of Agriculture and Colonization attributes this fairly recent development partly to the tenacity and courage of groups of determined growers, and partly to the spirit of initiative and devotion of certain far-sighted agronomes and specialists. All these, as through by mutual understanding, have worked with a will to reach their goal of putting previously unused land to sound and profitable use.

Drainage, which so often lies at the root of good farming, is even more important in the case of organic soils because they hold moisture much better than do other soils. There are various systems of drainage, but the most advisable method for well-decomposed muck soils consists in digging, at intervals of about every 150 feet, ditches with sloping sides, at least two feet deep and four to five feet wide at the surface. On peat lands this work is carried out with a back-digger. Tile drainage is not advisable before the soil has become well packed, which usually takes seven or eight years.

When drainage has been attended to, there comes the task of cutting down the big trees, then removing the stumps and roots. If the trees and shrubs are less than three inches in diameter, a flat ploughing is carried out, twenty to twenty-four inches wide and fourteen to sixteen inches deep. On peat land the surface vegetation is pulverized by means of a rotocutter and then buried by ploughing sixteen inches deep.

The practice of ploughing every year is not suitable for most vegetables grown in organic soil: although slightly advantageous in the case of carrots, parsnips and swedes, there is hardly any point to it for potatoes. However, it is necessary to plough after every crop of celery. In general, the custom is to plough once every four or five years, preferably in spring: this routine has the effect of allowing the soil to become firm and of improving its texture at the surface.

Organic soils need liming to a greater or lesser extent, depending on their degree of acidity and their calcium content. They should be limed in accordance with the results of a soil test. Lime can be applied at any time of the year but, if there proves to be an urgent need for it, it should be applied in the summer or autumn before the sowing or planting. The ground limestone will then have time to dissolve and become assimilable. As a rule, two or three tons per acre are applied and worked in by harrowing. If more than four tons per acre are needed, half of it should be applied before ploughing and the rest after. Some peat lands require ten to twelve tons per acre for satisfactory neutralization. In such cases, it is best to start by applying three or four tons of ground limestone per acre, then 400 to 500 pounds of hydrated lime, and postpone the application of the remainder until later.

THREE VEGETABLES FOR THE HOME GARDEN

Swiss chard, celery-lettuce, and salsify are three vegetables which are worth knowing about, both on account of their nutritive value and their savour. Mr. F. Fortier of the Quebec Department of Agriculture and Colonization describes them as follows:

Swiss chard is a plant of attractive appearance. Its broad leaves are prepared for eating in the same way as spinach, while the stems and midribs are cooked like asparagus. It has a mild flavour and lends itself to a large variety of delicious seasonings. If only one or two leaves at a time are picked from each plant, there will be a continual supply until freeze-up. The plants are easy to raise and grow rapidly without any special care. A row twenty-four feet long will provide enough for a family of four.

Celtus or celery-lettuce is a vegetable with a unique flavour somewhat resembling both celery and lettuce. The young shoots are eaten like lettuce. and the plant itself like celery. Those who prefer it cooked may boil it, season with salt and pepper, and serve it with butter or with oil and vinegar dressing, or else cook it in the oven "au gratin". This vegetable contains vitamins A, B, C and G. It has four times as much vitamin C as lettuce. It is grown like lettuce.

Salsify is unquestionably one of the gourmet's favourite dishes. It is a root vegetable about six or eight inches long, with leaves rather like a leek but narrower. It is grown in the same way as the parsnip and, being a biennial, may be left in the ground all winter.

In soups and chowders, salsify has the flavour of oysters, and for this reason is often called "vegetable oyster". When being prepared for cooking, salsify roots should be put into cold water as soon as they have been scraped, so that they will not turn dark.

The family of Mr. Raymond Clément cooperates in picking rasberries at Johnville, Compton county.

PLANTING RASPBERRY CANES IN THE FALL

The latter part of October is usually a favourable time to plant raspberry canes in the fall. Mr. Paul Vanier of the Horticulture Service of the Quebec Department of Agriculture and Colonization believes that attention to the following points will go a long way towards ensuring the success of a raspberry plantation:

In the first place, choose a rich, deep well-drained sandy-clay or loam soil. Heavy soils and warm, droughty, sandy land should be avoided since they are quite unsuitable for raspberries.

Secondly, the preparation of the soil should be begun, at least a year before planting, by the cultivation of some early crop or by the summer-fallowing of the land. This should be followed by a green-manure crop which is ploughed under in the fall. Instead of a green-manure crop, well-rotted manure may be applied to the land at the rate of twenty tons to the acre and then turned under by deep ploughing. The soil must be given a thorough disking before the canes are planted. Prior to disking, 500 pounds to the acre of 5-10-15 commercial fertilizer should be applied. Enough space should be left between the rows to allow the intervening land to be worked with a tractor — in other words, not less than ten feet. The distance between the plants in the row may vary from 24 to 30 inches.

Care should be taken to set the canes properly and deep enough (that is to say between 4 and 6 inches deep, according to their root development) and to press down the soil firmly about the roots when planting. In order to encourage the canes to send up new shoots or suckers in the following spring, they should be cut back, after having been planted, to a height of from 4 to 6 inches above the level of the soil.

The canes used for planting should be certified, that is to say, free from disease. The grower is advised to use only those varieties which have been recommended for his district. He may ask his county agronome or the regional specialist in horticulture for the names of such varieties. Plantations of certified raspberries are maintained in the Province of Quebec for propagation purposes: Growers may obtain disease-free stock from these at a very reasonable price. In general, the mid-season variety "Newburg" and the early variety "Trent" are particularly good yielders and their fruit is very well suited to market requirements.

CORRECTIVE SPRAYING

Emotions are relieved when fruit growers pass resolutions deploring the high cost of pesticides. That's all that's accomplished though — and costs don't come down.

But, advises federal entomologist Dr. J. Marshall, there is an effective way of reducing the spray bill — by corrective, or curative spraying.

The researcher, who is based on Summerland, B.C., explains:

"In corrective spraying, you spray only when you must. You don't spray according to a pre-arranged schedule, nor because you think a pest might materialize. That is preventive spraying, and it is an expensive habit.

"Nor do you spray because the moon is in a propitious phrase; nor because your neighbour is spraying. You use your intelligence instead of your instinct, or your urge to conform. You disregard that slick, symbol of modern living, the formula.

"You never lose sight of the fact that you have insect friends in the orchard, as well as insect enemies. You do all you can to avoid unnecessary killing of your friends so that they may survive to attack your enemies."

Dr. Marshall adds that at Summerland, corrective spraying shaved about twenty-five dollars an acre off spray costs. He notes that "year in and year out, that's a consideration worth a second look."

Researchers plan to establish large demonstration blocks in five of British Columbia's main fruit-growing areas to show now the grower can keep those dollars in his pocket. *(From "Farm News" No. 1051, March 6th, 1963.)*

Meet the incomparable archy

by
J. D. Ratcliff

DOZENS OF TIMES you have seen a creature more remarkable than anything in a zoo — and likely had feelings of revulsion. One of the earth's oldest inhabitants, a fanciful pageant of life has passed before the creature's small, sharp eyes:

He was on hand when a great east-west chain of mountains that once crossed Europe sank to level ground; and saw the Rockies, Alps, and Appalachians push their way upward;

He traveled the land bridge that several times connected England with the Continent; and saw the subsidence of the great inland sea that once covered the U.S. from Pennsylvania to Colorado;

He was already an old timer when Texas oil and West Virginia coal were formed, and was a witness to the advance and retreat of the great glaciers;

He gazed on bizarre plants and animals long since gone: fern tress over 100 feet high, insects with the wingspread of eagles, wooly mamoths, sabre-toothed tigers. He was present to greet the arrival of dinosaurs 170 million years ago and to bid them goodbye a hundred million years later;

Express his 350-million year tenure on earth in terms of a calendar year. The year was nearly over — December 30th — when he welcomed that late arrival, Man.

We are speaking of the lowly cockroach.

At a time when our very survival on earth is in possible jeopardy we might to well to observe the remarkable Archy — so christened by Don Marquis in his archy and nehitabel. The cockroach has learned more about survival than any other creature. A living fossil, he has some extraordinary attributes. He eats anything and lives anywhere — from the middle of the Sahara to military kitchens in Labrador. Cockroaches have been found comfortably ensconced in cash registers, market scales and have lately found a new home — TV sets where parts provide warmth, and wax, paraffin and insulation an acceptable if not epicurean diet.

Born moochers, cockroaches almost surely moved in with the first cavemen, scavenging for remnants of hunt feasts. As an unwanted and unhonored guest he has lived with man since. Still, fewer thanI per cent of the 3500 known species prefer the home to other environments. Some live in the burrows of ground squirrels eating stored foods. Others are parasitic on ants, a few subsists on guana in bat caves. Still others prefer the forest. Like their cousins, the termites, one species have microbes in their digestive tracts which convert wood into utilizable nutrients.

A large part of Archy's ability to survive undoubtedly traces to the catholicity of his food tastes. He has been known to eat everything from orchid buds, to shoes, to the glue that holds cartons together, He sips beer, chews through gravy spots on neckties, nibbles at paint, relishes soap. He even eats his own cast-off skin and if sufficiently hard pressed dines on the eggs of his own species. Archy normally leads a life of paceful coexistence with his brothers. But it need of food becomes desperate he turns cannibal.

He survives periods of starvation that few other species could tolerate. Without visible ill effect he survives roughly a month without food or water, two months on water alone, five months on dry food but no water. He is one of the few creatures on earth that can survive without critically important vitamins A and C.

Because of their fetid odor, we thing of cockroaches as filthy. The odor traces to scent glands, much like those of the skunk. This is another of Archy's protections — because of his aroma many potential predators — song birds, for example — refuse to eat him. Actually, he is quite a fastidious little fellow. He spends hours washing feet and legs and lavishing an enormous amount of time on his antennae. Although known to carry pathogens of polio, typhoid, gastroenterities, and other diseases he has yet to be securely linked with spreading any of them — in the sense that mosquitoes are known to spread malaria, flies intentinal diseases, lice typhus, etc.

Get a close-up of the Blattidae — that's Archy's family name. Some forest-dwelling tropical species are nearly as large as humming birds — 2½ inch bodies, 7 — inch wingspans. Others are smaller than grains of rice. Color is usually in the brown-to-black range although some are as resplendent as rainbows. Nearly all have wings — even household species can fly when other means of escape fail. But main reliance is placed on six long, powerful, fleet legs — in a twinkling a kitchen picnic breaks up when lights go on.

The cockroach's antennae are his most remarkable piece of equipment. These two wavy protuberances, lovingly and frequently cleaned by running them through the mouth, are often longer than the insect itself.

They help Archy feel his way in the dark. Containing olfactory cells they detect food — Archy can smell cheese at considerable distance with his antennae. They also act as divining rods to detect water and apparently pick up sound waves — even over the telephone! French researchers report males respond to telephoned love calls from females! The antennae also play a key role in production — Archy strokes his lady's antennae to arouse sexual interest. Snip them off and he comes a sad, dull, disinterested fellow.

In all of his amazing 300-odd million years on earth the cockroach has remained virtually stationary on the evolutionary ladder. Says Dr. Jerome Rozen Jr. of the American Museum of Natural History: "If a cockroach of the carboniferous period suddenly appeared in your kitchen today, you would unerringly recognize it as a cockroach." There has been a slight alteration of wing veins, and that's about all. It's quite possible that the cockroach's lack of

ambition to get ahead has spared him from extinction — he found a secure niche and stayed in it.

His nocturnal habits have also helped insure his place on earth. In the sanctuary of darkness he avoids many potential enemies. He has some remarkable visual equipment: two superbly sensitive compound eyes and three "simple" eyes on top his head. He has a wide range of vision. Even when blinded he some how recognizes light as danger — and will scurry for cover when the electricity is switched on. Remove his head and he still uses a final burst of muscular energy to flee from light. Apparently, he has light-sensitive cells in his skin which give warning.

A superbug in every sense of the word, Archy is remarkably ingenious. To gain entrance to a home from a sewer he will swim through the water barrier of sink, basin, and toilet traps. How does he guess that there is food at the end of a water voyage? Only Archy can answer that one. Experiments have been devised to make him seek light, shun darkness. Placed in a tunnel where he gets a mild shock at the dark end, food in the brightly lighted end, he quickly learns to avoid his usual habitat.

He is far tougher than the 35-ton dinosaurs he once rubbed elbows with. Step on him and his hard, compressible body oftens saves him — he skitters away when pressure is removed. An admirable contortionist, he can get through cracks that appear impossible to negotiate. Freeze him and he walks away with unconcern when thawed. Stop his breathing tubes with paraffin and he survives for hours.

Even deadly poisons are only temporary inconveniences — he learns to live with them as he has learned to live with countless other threats. DDT once hurt him. No more. For a while chlordane looked like the roach exterminator supreme. Today, Archy can be drenched with it and show no ill effects.

He is a prolific breeder — 24 hours after reaching adulthood he is ready to start raising a family. Females have been know to produce as many as 180 offspring in 303 days. Given favourable circumstances the way is open for fantastic population explosions. Russian entomologists collected 475,000 dead cockroaches from a single fumigated barracks! The roach population in a small Austin, Texas apartment was estimated at 100,000.

The female is generally a good mother. Some species hatch eggs within their bodies to produce live young. But most carry a usual 12 - 14 eggs in a neat little purse-shaped sac which protrudes from the end of the abdomen. As with other females, the purse is occasionally mislaid. The eggs hatch anyway, the newborn being able to survive a week without food. Usually, however, the female drops the sac near a source of food, carefully hiding it with comouflaging debris.

Cockroaches are inveterate travelers. Almost surely, European cockroaches arrived in America aboard the Mayflower. Captain Bligh complained of them on the Bounty, and Sir Francis Drake noted that they infested Spanish ships. Yet, all early sailors didn't despise Archy. Indeed, he was welcomed aboard many ships on the theory that he ate bedbugs.

Corpus Christi, Texas, presents clear evidence of how Archy has taken to plane travel. A decade ago the city suffered twin outbreaks of infant diarrhea and polio. Flies were suspected of spreading both. The city was drenched with insecticide in an all-out anti-fly campaign. As a corollarly, uncounted millions of roaches perished too. But not all. Some had built-in resistance to chlordane and other poisons — which they passed along to offspring. In a matter of months these new resistant strains were hopping planes for all parts of the United States — showing up first in airport restaurant kitchens.

Recently, Louis M. Roth, and Edwin R. Willis, entomologists, suggested that when man develops a suitable vehicle, cockroaches could accompany him into space. The remark is prophetic. Studies at the U.S. Department of Agriculture indicate the Madeira species may be the astronaut supreme. With no apparent discomfort he withsands over 100 times the radiation that man can stand. The same is true with gravity pull.

A capsule has been prepared for his first journey into space — a beer can. It contains all the air he will need for weeks, and there is no necessity to provide food or water. Ingenious electrodes have been developed to check Archy's nervous and muscular responses — and radio results back to earth. All this is expected to yield valuable information translatable to man.

Useful fellow though he may be, most of us prefer not to have Archy around. But chances of getting rid of him are virtually nil. "If we can hold our own against them that is about the best we can hope for," says Dr. Philip Spear of the National Pest Control Association. New roach-killers come from research laboratories in a steady stream. Most highly effective at first. But given time Archy learns to live with them — as he has learned to live with everything else. A major search is now underway for better roach repellents — something which will drive the insects out of hiding places so exterminators can get at them with super poisons.

Scrupulous cleanliness is about the best weapon the home owner has against cockroaches. If food is kept in sealed containers, and poison is used discreetly, most home roach problems can be solved.

The record against the cockroach isn't completely black. Many species consume dead vegetation that would otherwise clog forests. Because of hardiness and rapid breeding cockroaches are valuable research animals. They are used in cancer and heart disease research, and nutrition studies. They will likely be able to tell us a lot about radiation dangers in space.

Other insects are noted for their pedagogical achievements. Ants teach thrift and planning, bees the virtues of industry, grasshoppers the pure joy of living. Archy? Nothing in particular — unless it is that living quietly and tending strictly to one's own business seems to pay off over the course of a few hundred million years.

The Better Impulse

NEWS AND VIEWS OF THE WOMEN'S INSTITUTES OF QUEBEC

HONG KONG

(Pearl of the Orient)

(Continued from last month)

Junks and Sampans in harbour.

Some of these people are still very superstitous and set off fire crackers to keep the evil spirits from them as we passed, but in most cases mothers hurried to watch us and helped the babies wave to us. Some of the older children dived in and out of the water and as most of them were all or partly naked, there seemed no need of bathing suits. Our guide told us that in spite of the hard life these people were very healthy and they certainly seemed much happier than people who have so much more. Most of these people are fisher folk and there are large fish packing plants on shore.

Miss Isobel Miller of Knowlton in the Eastern Townships and niece of Mrs. Pearson (one of our most active members in Sherbrooke County) is a medical missionary in Junk Bay and she came to the hotel and had lunch with me one day and told me of her work. She is indeed a heroine, for one has to really love ones fellow man to work under such conditions. To live with the smell of fish and all the other smells which go with a seething mass of humanity requires real grit. Miss Miller works also with thousands of refugees from Red China camping out on the hillsides needing attention and care. Many of these are men who have spent all their lives as soldiers and who do not know how to work for a living and who do not seem to be able to accept a new way of life.

Thousands of refugees have entered Hong Kong from Red China and have built shacks of any and every type of junk and they are densely packed on the hillsides and have even invaded the roofs of plants and industrial buildings. The people of Hong Kong are most sympathetic but are frustated as more and more arrive. The government has built blocks of one room apartments where they are trying to house these unfortunate people.

Another trip took us along fifty miles of coastline through the New Territories. This is old China and the people have not changed their ways as in some parts of Hong Kong. Here are many farms, strange sloping roofed huts and where women as well as men plough with old fashioned plows hitched to water buffalo. There are mysterious looking walled villages where people of the same name live communally.

We drove right up to the borders of Red China, looking across the Sham Chun River to th ehills beyond and to the wire barricades beyond which we could not pass. As I looked at these refugees I wondered at their thirst for freedom — a fredom which to me was still a life of poverty and squalor and I thought there, but for the Grace of God and the accident of birth go I.

I felt ashamed that we who have freedom and abundance care so little for those to whom freedom means so much, and I wondered more and more often why we as Canadians treat our freedom so lightly and our responsibilities more lightly still.

Sincerely,
E. C. Ossington.
1st Vice-Pres.

SELF TRUST IS FIRST SECRET OF SUCCESS

Human beings are always looking for security as they have been doing since the beginning of time. Security is a treasure — but where do we find it? I have concluded that when you look to someone else for it you are looking in the wrong direction. The greatest security a person may have comes from within ourselves.

When we feel secure we should realize the dignity and worth of the human person, thus build in us the qualities of upright Canadian citizens.

Canada is heard of in many foreign lands. One elderly refugee was quoted as requesting to come to Canada as she heard they cared for senior refugees.

Canadian citizens must realize the underlying need in United Nations affairs for stability in these turbulent times. Most people of the world look hopefully to the United Nations to point the way and provide the means to these ends.

The greatly increased membership of the Assembly and length of recent sessions give added urgency to the need for the most efficient working methods. Speed and efficiency with which they carry out their work is an important factor in determining the degree of public support for the United Nations.

Let us bear in mind that a vast amount of constructive work may be done by citizens organizing programs: — plan U.N. Day, Human Rights' Day. May we always be willing for team work to put on a drive for U.N.C.E.F. or U.N.E.S.C.O. and be a very active member of United Nations.

2 W.I. Prov. Con. Citizenship
A. M. Corigan

World Food Conference

A World Food Conference will be held in Washington, D.C., June 4 to 18, inclusive. While registrations are not complete, a very large number of world's exporting and importing countries will be in attendance.

THE MONTH WITH THE W.I.

Four lambs born to one ewe had their photo taken by Lorraine Kelso, daughter of Lorne Kelso of St. Pierre Baptist, P.Q., two days after birth.

Annual meetings are the big news item this month. You have heard reports of the year's work, which have brought a gratifying sense of achievement, and plans have been made for an even better year ahead. Your new officers have been elected, and let us remember that, while good officers welcome constructive criticism, they also need appreciation when it is due.

ARGENTEUIL:

Arundel held a course in ceramics, and was shown a film on the work of the Red Cross. **Mille Isle** report two new members and **Pioneer** recruited one.

Reports mentioning only payment of fees, installation of officers etc. were received from **Dalesville-Louisa, Frontier, Jerusalem-Bethany** and **Upper Lachute-East End.**

BONAVENTURE:

Grand Cascapedia assisted a needy family with groceries, and sent a gift parcel to a patient in the Verdun Hospital. They are working on a quilt. **Marcil** is sponsoring the serving of soup at a local school. **Matapedia** had an exchange of dish towels, and they will give donations to four schools to be used as prize money in June.

BROME:

Abercorn held a drawing on an afghan, donated by a friend. A gift of wool will be used for the Christmas Stocking project. **Austin** have a new member, and they received a Pictorial Calendar from England.

CHATEAUGUAY-HUNTINGDON:

Aubrey-Riverfield surprised their "vivacious" president, Mrs. Janet Reddick, with a birthday cake. (Congratulations to Mrs. Reddick who is 80 years young!) **Hemmingford** sent 1,500 used Christmas cards to Taiwan, with an accompanying letter explaining the Women's Institute (That's good publicity for you!) **Howick** report with regret the death of a charter member, Mrs. John Graham, in her 95th year. Amusing comments on "The Years after Fifty" were given by Miss Jean Ritchie.

GATINEAU:

Aylmer East heard about work with retarded children from Mrs. Fortier and Mrs. Scora of the Association for Retarded Children. Mrs. E. B. Watson, County President, was also present.

Eardley took part in the Farm Forum broadcast and discussion on Canada's World Obligations. **Lakeview** exchanged recipes and saw slides on "How to Prepare Sandwiches and Potatoes". A successful Bingo was held. **Rupert** enjoyed a talk on "Music" given by Mrs. Robert Pritchard. Mrs. Clarence Smith had a quiz on "Education" followed by a discussion on Homework. **Wakefield**'s speaker was

Kelly, daughter of Stanley Holmes QWI bursary winner '60 is beginning early to help Daddy.

A Rug hooking course was held at Iverness School, January 7-11. This photo was taken during the event.

The Rouyn-Noranda W.I. Fashion Show after completing sewing course under the direction of Mrs. A. Wells.

Mrs. A. C. Wright, a descendant of the late Philemon Wright, spoke on Historical Happenings in the Gatineau Valley. W.I. members have joined a recently formed Historical Society.

Wright also listened to the Farm Forum broadcast, and a competition for a home made Valentine was won by Mrs. E. Kelly and Miss I. Derby.

JACQUES CARTIER:

St. Anne de Bellevue had their new officers installed by Miss Norma Holmes.

MISSISQUOI:

Cowansville and **Fordyce** renewed subscriptions to the Federated News, the Countrywoman and Health magazine. Also memberships to the C.A.C. and U.N. Association. **Stanbridge East** are to work for the local Red Cross Branch. Baby clothes were cut out and taken home to be completed.

PAPINEAU:

Lochaber have completed 6 Layettes, and several pairs of heelless stockings for the Unitarian S.C.

PONTIAC:

Beechgrove had a discussion on the rights of women in Quebec. They are raising money for Retarded Children by selling mitts, and they helped financially with the local skating rink.

Clarendon donated groceries to a bereaved family, and entertained the County President. **Elmside** also had the county president as a visitor. A demonstration was given on fancy cookies made with a cookie press.

Fort Coulonge heard a paper on Health, Medicine and Social Changes, written by Dr. H. R. Rabb. **Quyon** had a grandmother's meeting, when prizes were given to nine visiting and member grandmothers. A basket of groceries was sent to a needy family. **Shawville** had an interesting talk by Bruce Yemen of the Ottawa Journal, on the best methods of presenting publicity of their meetings.

RICHMOND:

Cleveland presented prizes for perfect attendance to three members — Mrs. Clarence Pease, Mrs. Gordon Healy and Mrs. Ralph Healy. **Gore** made several donations and are working for the Cancer Society and a Home for Retarded Children. **Melbourne Ridge** sent a donation to the Cecil Memorial Home in memory of a deceased friend. **Richmond Hill** had five members with perfect attendance, and they were rewarded with cups and saucers. **Richmond Young Women** had an auction of donated remnants, and **Shipton** discussed the Canadian Ensign, after readings from literature of the Canadian Patriotic Association. **Spooner Pond** had a drawing on a quilt they had made. The lucky winner was Miss Alana Stalker. Gifts were presented to the retiring President and Treasurer, and to a new baby.

ROUVILLE:

Abbotsford enjoyed an Art Appreciation Course conducted by Miss Runnells.

SHERBROOKE:

Ascot had a talk by Mrs. Lorne Buckman on the craft work done at the School for Retarded Children, with an exhibit of their work. The monthly broadcast was given by Mrs. Arthur Coates who spoke on the early making of glass and pottery in Quebec. **Belvidere's** guest speaker was Mrs. Munkittrick, who spoke on Social Welfare and the Maplemount Home. Minton W.I. members from Stanstead County were visitors.

Brompton Road worked on Cancer dressings, their contest was for jam and marmalade, which was later auctioned.

Lennoxville entertained East Augus W.I. from Compton county. Their roll call was new ideas for the program. Members from this branch won 1st and 2nd prizes in the county competition for something new from something old. They were Mrs. Warren Ross and Mrs. Rupert Porter. Cancer dressings were made, and knitted squares. The Lowney plant was visited.

Milby sold food from a travelling basket.

VAUDREUIL:

Cavagnal held a successful dessert card party.

Harwood enjoyed a talk by Mrs. Ann Street, telling of her study of folk lore and folk songs in Northern Labrador, the French Islands and Newfoundland. Food hampers were sent to local needy families and a large parcel of warm clothing was collected for overseas relief. A dessert card party was also held by this branch.

TEMISKAMING:

Notre Dame du Nord held a skating party for the school children, with prizes donated by members.

WEATHER WISE

Phenology is the study of the dates of recurring events in the annual cycle for plants and animals. The dates when certain plants bud or flower in the spring are phenological measurements. So are the dates of migration of birds. This is not to be confused with phrenology, which is the study of the shape of people's heads as an indication of how clever they are.

Since the development of plants is determined by climate, phenological measurements give a very satisfactory comparison of climate between two years or between two localities. A late spring is measured by a later date for beginning of flowering or growth.

These measurements are easy to make, and anyone with an interest in local climate should keep phenological records. Keep a record every year of the dates of such events as: the first pussy willows, flowering of trilium, flowering of lilac, or the appearance of leaves on a certain tree in the yard. These dates will vary from year to year and provide an excellent record of the season's climate. If measurements are available for the same kind of plant in another locality, a comparison of climates can be made. Such a comparison can also be made by observing these events in driving from one area to another.

For Your Information

Pelletier Joins Arda

Dr. J. R. Pelletier, an internationally recognized bilingual official of the Canada Department of Agriculture for 33 years, has been appointed to a senior position in the Agricultural Rehabilitation and Development Administration, Agriculture Minister Alvin Hamilton announced recently.

Dr. Pelletier, 57, has been named an Assistant Director. He will have particular responsibilities for ARDA activities in the Province of Quebec, at the same time forming part of the senior policy and planning team in Ottawa.

Born at St. Leon, Matane County, Quebec, he acquired his agricultural education and scientific training at Laval, McGill, and Wisconsin universities, Aberystwyth University in Wales, and the Institut Agronomique, Paris, France. He holds the degrees of B.S.A., M.Sc., D.Sc.

For 23 years, Dr. Pelletier served as Director of the Ste-Anne de la Pocatiere experimental farm, where he oriented the research work of his staff towards soil management problems and crop production practices, leading to a successful grassland agriculture.

On the international level, he represented his country at seven agricultural conferences and participated at four international grassland congresses. In 1952-54, he served as Mission Chief for the FAO agency of the United Nations in Iran.

Dr. Pelletier's other public activities in the field of Canadian agriculture include: Chairman of the Eastern Canadian Society of Agronomy; member of the National Post-war Reconstruction Committee; the National Soil Conservation Committee; and the Interdepartmental Labor Committee.

Dr. Pelletier is associated with scientific and professional organizations, including the American Association for the Advancement of Science; the Soil and Water Conservation Society of America; the Agricultural Institute of Canada; the Agricultural Economists Society of France; the American Society of Agronomy; and the Canadian Audubon Society.

Prior to his latest appointment, Dr. Pelletier served as Scientific Liaison Officer in the department's Research Branch in Ottawa.

Farm Forum News 'N' Views

ON THE COOPERATIVE IDEA

The Coop Idea began about 120 years ago and, while some of the changes in coops have been necessary because of changes in our economy, the same basic principles still apply. Nearly every forum group in Quebec felt that the basic principles of open membership, democratic control, limited return on capital, and patronage refunds still applied to our present day cooperatives.

In answer to the question — which principles no longer apply to your coperative — several groups had diverse replies — **Arundel Forum** felt that coops do not give sufficient credit to their customers. **The Bulwer Forum** in Compton County stated that the size of a coop makes it difficult for a member to realize that he is part of it. "Therein lies the danger" — added the Bulwer Forum. **The Farnham Glen** group in Brome felt that there is a tendency for closed or selective membership — "There is no return on the capital and there are no patronage dividents." **The Tullochgorum Forum** in Chateauguay had the same idea. "It was felt by all" — they reported — "that patronage dividends or refunds were never paid. Everything was always put back in the business", they added. The Dalhousie Forum in Soulanges agreed.

Should some of the coop principles be reinstated or others abandoned? Most Forums felt they couldn't answer this question because they didn't know enough about coops. **The East Clifton** group in Compton did point out that coops should extend more credit and that radial and religious neutrality and education should have a greater part in the cooperative programs.

The second main question asked — Does the cooperative way of doing business contribute to a better society? Many groups said they didn't know. **The Third Range** Forum in Sherbrooke felt that coops have contributed more in Western Canada than they have in the East.

The East Clifton Forum replied, "No", coops have not contributed to a better society. They said, — "Coops are like other businesses in the same line. They cater to the consumer and don't bother with the farmer producers. Coops may start with the Rochdale Principles but to compete they have to expand. Growing pains take away the heart of the coop and it becomes big business."

The Silver Creek Forum in Papineau reported that Hydro coops had bettered farming to a great extent." Cheaper insurance rates through coops have also been a help", the Silver Creek Forum added.

The Creek Forum in Brome County answered this way — "the main contributions that coops make to society are, we feel, that they create competition, better service and lower prices. The coop shouldn't try to control prices for profit, however, but should give people the opportunity to get together to iron out their problems."

OUTSIDE . . .

1. Cut out 3 - 4 older branches (shaded)
2. Remove suckers.
3. Please, no "brush-cut", it's wrong.

"TO PRUNE OR NOT TO PRUNE"

Flowering shrubs and evergreens planted around our homes need good pruning practices. Without regular pruning shrubs become overgrown, formless, filled with dead wood, and do not flower well.

Some home owners hesitate to prune for fear of making a mistake; others prune everything in sight with a heavy hand and may damage their plant material.

The best way to cultivate skill in pruning properly is through practice and observation of growing habits of different plants. One must learn the basic principles and know the exceptions of pruning with various groups of plants.

Ornamental shrubs are pruned:

1. When they are dormant, i.e., before growth begins in early spring; Barberry, Smoke-tree, Cotoneaster, Eleagnus, Evonymus, Honeysuckle, Privet, Snowberry, Viburnum.
   Every year a thinning out of two or three older branches, weak and interfering wood should be cut back to the ground.
2. Immediately after flowering;
   Forsythia, Kerria, Beauty-bush, Mock-orange, Ninebark, Bridal Wreath Spirea, Van Houttei Spirea, Weigelia.
   Cut off that portion of the stems which bore the flowers and thin out at the base, or back to a vigorous young shoot, several of the oldest stems to encourage new growth from the base of the shrub. Young lilacs can be kept to the desired height and in strong growth by cutting of the dead flower clusters. Old lilacs become crowded with suckers and old, heavy stems which have to be pruned to the ground. When there are a great many shoots, all but four or five of the strongest of these should be pruned off.
3. The removal of damaged and dead wood can be done at any time of the year. Water sprouts from the branches should be removed, except for a few which may be used in renewing portions of the top, and replacing wood that has been weakened.
4. Young evergreens can be ruined if the plants are allowed to grow unpruned to such a large size that they crowd each other.
   Arborvitae junipers, hemlocks, yews, can be pruned at almost any time — do not cut back into the dead needle area. For good results nip off about half of the new growth in June.
   With Pyramidal evergreens it is advisable to take out the top leader as soon as the desired height is reached.
   Spruces, pines, and firs are pruned by cutting, with a sharp knife, young growth, or young candles (shoots) half way in June.

Juri Roht,
Department of Horticulture.

WHAT'S NEW IN BOOKS?

SILENT SPRING

Rachel Carson, author of best selling non-fiction and articles in scholarly journals, is both eminent biologist and competent author. After specializing in English at college, she studied Biology and did graduate work in that subject. At one time she was employed by the U.S. Fish and Wildlife Service. She holds may honours for her work as a biologist.

It was Miss Rachel's deep love of Nature in all its forms that prompted her to write the controversial and popular SILENT SPRING. In it she expresses concern over the widespread use of pesticides, claiming they are poisoning plants, animals, and man, even threatening "man's link with the future" by causing genetic deterioration.

Miss Carson pleads for a safe program of weed and insect control to replace the present indiscriminate use of insecticides, herbicides and fungicides, those dangerous poisons which leave "cancer inducing chemical residues on virtually everything we eat and drink". She asks that biological controls replace the chemical ones now in use.

SILENT SPRING is a provocative book that has been widely acclaimed and widely criticized by both the pure scientist and the industrialist. The subject matter is of vital interest to everyone; it is presented in an interesting narrative style, and is illustrated by excellent drawings.

THE INCREDIBLE JOURNEY

"The Incredible Journey" is a book to delight both young and old. It is eminently suitable for you and your family to read aloud.

The story is of two dogs and a cat — a young large "red-gold" Labrador retriever named Luath; an old white English bull terrier called Bodger; and the Siamese cat Tao. Together these three pets struggle through dangerous northern country to return to their beloved masters. Despite the terrors of the unfamiliar wilderness through which they travel, they follow Luath's lead and support each other as they continue ever westward with a singleness of purpose toward their home.

Mrs. Burnford's style in this her first novel is clear and concise. Her knowledge of the ways of these domestic animals is considerable.